FAST-NEUTRON TOTAL AND SCATTERING CROSS SECTIONS OF ^{103}Rh*

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Abstract

Fast-neutron total cross sections of ^{103}Rh are measured with 30 to 50 keV resolutions from 0.7 to 4.5 MeV. Differential elastic- and inelastic-scattering cross sections are measured from 1.45 to 3.85 MeV. Scattered-neutron groups corresponding to excited levels at 334±13, 536±7, 648±25, 796±20, 864±22, 1120±22, 1279±50, 1481±27, 1683±39, 1840±79, 1991±71 and 2050 (tentative) keV are observed. An optical-statistical model is derived from the elastic-scattering results. The experimental values are compared with comparable quantities given in the ENDF/B-V evaluation.

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